# Appendix 4 Data limitations

## ABS mortality data

Excessively precise analysis based on Indigenous death registrations, Indigenous deaths coverage or projected Indigenous deaths should be avoided.

The registration of deaths is the responsibility of registrars in individual states and territories. It is based on information supplied by a relative, another person acquainted with the deceased, a funeral director, or an official of the institution where the death occurred, and on information about the cause of death supplied by a medical practitioner. State and territory registrars supply this information to the ABS for compilation into aggregate mortality statistics for its publications.

Although it is considered that most Indigenous deaths are registered, not all Indigenous people are identified as such in deaths data (ABS 2008). There are several data collection forms on which people are asked to state whether they are of Indigenous origin, and the results are not always consistent. The likelihood that a person will be identified in administrative collections is influenced by factors including: whether the person or their next of kin is asked the question; who completes the form (for example, a relative, an official or a funeral director); the perception of how the information will be used; education programs about the importance of identifying Indigenous; and emotional reaction to identifying as Indigenous.

Understanding of the extent to which Indigenous deaths are recorded as Indigenous in death registrations data is improving. The ABS carried out research linking 2006 Census records and death registration data (ABS 2008), from which the ABS concluded that was better than had previously been estimated. Research by the Australian Institute of Health and Welfare (AIHW) linking death registrations data to data on deaths in hospitals and aged care facilities will provide additional information on Indigenous mortality.

Changing rates of Indigenous identification in deaths data over time and between states and territories means that time series and geographic comparisons should be interpreted with caution.

Improved information on coverage of Indigenous deaths has enabled the ABS to use a different method to estimate Indigenous life expectancy. More information is included in section 4.1.

## Census data

The ABS Census of Population and Housing takes place every 5 years. The Census is rich in information and has the potential for extensive disaggregation, and the 2006 Census is a major data source for this report. The next Census will be conducted in 2011. Because Census data are available less frequently than administrative data and some survey data, other sources need to be used for more frequent reporting.

The 2006 Census includes responses from just over 450 000 people who identified as being of Aboriginal and/or Torres Strait Islander origin, out of an estimated Indigenous population of just over 500 000. Following the Census, the ABS conducted a Post Enumeration Survey to identify people who may have been missed in the Census count. The Post Enumeration Survey also identified people whose Indigenous status was recorded differently in the Census and the Survey. The undercount of Indigenous people was particularly significant in WA (estimated at 25 per cent) and the NT (estimated at 20 per cent). Census data for these jurisdictions still provide a high quality picture of the circumstances of those who were counted, but readers should not assume that the characteristics of those who were counted in the Census are necessarily the same as those who were missed.

## Survey data

This report uses data from the ABS 2004-05 National Aboriginal and Torres Strait Islander Health Survey (NATSIHS), the ABS 2004-05 National Health Survey (NHS), the ABS 2002 National Aboriginal and Torres Strait Islander Social Survey (NATSISS), the ABS 1994 National Aboriginal and Torres Strait Islander Survey (NATSIS) and the ABS 2002 General Social Survey (GSS). Data from surveys conducted by other organisations are also included where relevant.

ABS surveys are designed to provide estimates for all indicators at the national level, and for most of the indicators at the state and territory level. Sample size also limits the extent to which data can be disaggregated by different factors such as geography, age and sex, particularly for characteristics that are not widespread across the population. More information on using and interpreting survey data is in ABS (2006). As a guide to readers, survey data in this report are presented in charts with error bars to show 95 per cent confidence intervals and relative standards errors (RSE) are included in the attachment tables accompanying the report on the Review website.

## Hospitalisations data

Hospitalisations data are from the National Hospital Morbidity Database (NHMD), a national collection of hospitalisation records maintained by the Australian Institute of Health and Welfare (AIHW). Health departments in all states and territories provide the AIHW, with information on the characteristics, diagnosis and care of admitted patients in public and private hospitals. Hospitalisations include admissions that result in discharges, transfers, deaths or changes in type or episode of care (defined in the database as hospital separations). A record is included for each hospitalisation, not for each patient, so patients who are admitted more than once in a year have more than one record in the database.

The coverage of hospitalisation data for Indigenous people is significantly improved in the 2009 report compared to the 2007 report. AIHW analyses of the quality of Indigenous identification of hospital admitted patient statistics showed that while the quality is good in some jurisdictions, other jurisdictions it is not sufficiently comprehensive or robust (AIHW 2005). In the 2007 report, data on the hospitalisation of Indigenous people were only available for Queensland, WA, SA and the NT. Data from NSW and Victoria are now of sufficient quality and are included in this report. Data for Tasmania and the ACT are still considered to be of insufficient robustness and are therefore not available for this report. Although Indigenous hospitalisation are now available from most states and territories, there is still scope for improvement in most of them. Therefore, the AIHW is working with all states and territories to continue to improve the quality of Indigenous identification in their hospitalisations data. Changing rates of Indigenous identification in hosptialisation means that time series and geographic comparisons should be interpreted with caution.

Data relating to admitted patients are included from almost all hospitals, including public acute and psychiatric hospitals, private acute and psychiatric hospitals, and private free-standing day hospital facilities.

The AIHW and the data providers jointly validate the morbidity database to ensure data quality. When data are supplied using non–standard definitions or classifications, the AIHW maps them to the National Health Data Dictionary definitions, where possible, in collaboration with the data providers.

### Limitations of the data

The following should be used to guide interpretation of the hospitalisations data.

- Although the National Health Data Dictionary definitions form the basis of the database, the actual definitions used may vary among the data providers and from one year to another. In addition, admission practices and the detail of the scope of the data collections may vary among the states and territories and from year to year.
- Each state and territory has a unique demographic structure, and factors such as age and Indigenous status can have an effect on the nature of health care delivery. The frequency of particular procedures, for example, can be affected by the demographic composition of the population.
- Although data on hospitalisations from the NHMD can reflect an aspect of the burden of disease in the community, they do not usually provide measures of the incidence or prevalence of conditions. This is because not all people with a particular condition or degree of illness are treated in hospital and there are multiple admissions for some chronic conditions. Also, the number and pattern of hospitalisations can be affected by differing admission practices, and differing levels and patterns of service provision.
- Analysis of hospital morbidity collections for Indigenous people is complicated by difficulties in estimating both the numbers of Indigenous patients admitted to hospital and the numbers in the overall population. Information about the numbers of Indigenous patients in hospital is limited by the accuracy with which they are identified in hospital records. Problems associated with identification will result in an understatement of morbidity patterns among Indigenous people. Assessments of the level of completeness of Indigenous identification in hospital is dependent on the accuracy with which morbidity collections are provided annually by each jurisdiction to the AIHW and have been explored in detail in AIHW (2005).

## Australian Institute of Criminology (AIC) homicide data and other police data

Limitations of the National Homicide Monitoring Program (NHMP) data, collected by the AIC, are discussed below.

- The data are derived from police records, which depend on the police accurately recording the Indigenous status of the victim and offender. In some jurisdictions this involves the police making a subjective assessment based solely on the victim's or offender's appearance, which might lead to errors and inconsistencies. In others, Indigenous status is determined by police administering a standard question. In a proportion of cases where determination of Indigenous status is based on external appearance, this might not readily identify them as Indigenous. Similarly, not all Indigenous people may choose to identify when asked by police. Hence, results reported from this data source might under represent the true extent of Indigenous homicide in Australia.

- Nevertheless, a 1998-99 study conducted by the ABS on assessing the quality of Indigenous status and racial appearance data collected by NSW police indicated that:

> When racial appearance data were compared with the Indigenous status data asked by the police, the data quality of Indigenous status based on racial appearance was fairly good for Aboriginal people, but the data quality for Torres Strait Islanders was poor. (SCRCSSP 2001, p. 382)

In addition to data from the AIC National Homicide Monitoring Program, police data from individual states and territories are included in sections 4.11 (Family and community violence) and 10.5 (Juvenile diversions as a proportion of all juvenile offenders).

## References

ABS (Australian Bureau of Statistics) 2008, *Information Paper: Census Data Enhancement — Indigenous Mortality Quality Study, Australia*, Cat. no. 4723.0, Canberra.

—— 2006, *National Aboriginal and Torres Strait Islander Health Survey: Users' Guide*, Cat. no. 4715.0, Canberra.

AIHW (Australian Institute of Health and Welfare) 2005, *Improving the Quality of Indigenous Identification in Hospital Separations Data*, Cat. no. HSE 101, Canberra.

SCRCSSP (Steering Committee for the Review of Commonwealth/State Service Provision) 2001, *Report on Government Services 2001*, Productivity Commission, Canberra.